

NOTES UPON TWO RARE FLATFISHES (GYMNACHIRUS  
FASCIATUS GÜNTHER AND G. NUDUS KAUP).

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On January 29, 1903, on station 7438, in Jewfish Bush Lake, 6¼ miles northwest by north of the west end of Long Key, Florida, in 8 feet of water, where the bottom consisted of "coral bar," the U. S. Fish Commission steamer *Fish Hawk* took in a small "scrape dredge" a specimen of *G. fasciatus* Günther, 2½ inches long, of which this is the first published record, and the only one of the species since that of the specimen described by Günther<sup>1</sup> from some unknown locality.

Günther's description of *G. fasciatus* indicates that it differs from *G. nudus* Kaup only in the number of dorsal and anal fin rays and the presence of a rudimentary pectoral fin on the right side.

The present specimen agrees essentially with the description by Günther, but perhaps showing a few more faint crossbars; being oval rather than circular, broadest posteriorly, and having an irregularly curved lateral line, arched somewhat in front, then curving gradually downward, then upward, thence straight to the tip of caudal, and somewhat longer pectoral.

Head 4; depth 1.81; lower eye 4.28; distance from lower eye to tip of upper jaw 2.70; depth of caudal peduncle 2 in head. Lower pectoral ray prolonged, longer than eye. Eye in pectoral 1.4; D. 68; A. 48; V. 5; P. 2; C. 16.

Transverse rows of cilia on body white tipped; preopercular and opercular ridges, chin, mouth, and snout fringed with cirri; ventral fringed; strongly fringed in front of dorsal to tip of snout, making it difficult to tell where dorsal begins; tips of dorsal, anal, and caudal rays bifid.

Color on right side brown with fourteen or more narrow, transverse, darker bars, extending on vertical fins, and plain lighter brownish on

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<sup>1</sup> Catalogue of the Fishes in the British Museum, vol. 4, 1862, p. 488.

Condensed description from Günther:

Total length 7½ inches; head about 4½ (5½ in total length); depth about 1½ (2 in total length with caudal); D. 68; A. 50; P. 2; V. 5; pectoral very small, 3 in orbit; jaws hidden in thick skin; lips and left side of head covered with fringes; gill-opening not extending upward as far as pectoral; vertical fins in thick skin.

Yellowish olive with 14 brown cross bands, as broad as the interspaces, all extending on dorsal and anal, the first across snout, second and third across eye; caudal with 3 brown cross bands; tips of the rays of the vertical fins white.

left side; tips of vertical fins, caudal rays, and pectoral white. Preserved in U. S. National Museum.

On October 20, 1906, Mr. Vinal N. Edwards, agent of the Bureau of Fisheries, at Woods Hole, Massachusetts, collected in Tisbury Great Pond, near the outlet, Marthas Vineyard, Massachusetts, a specimen of naked sole, of which the only previous record is the original one of Kaup,<sup>1</sup> who in 1858, under the name *Gymnachirus*

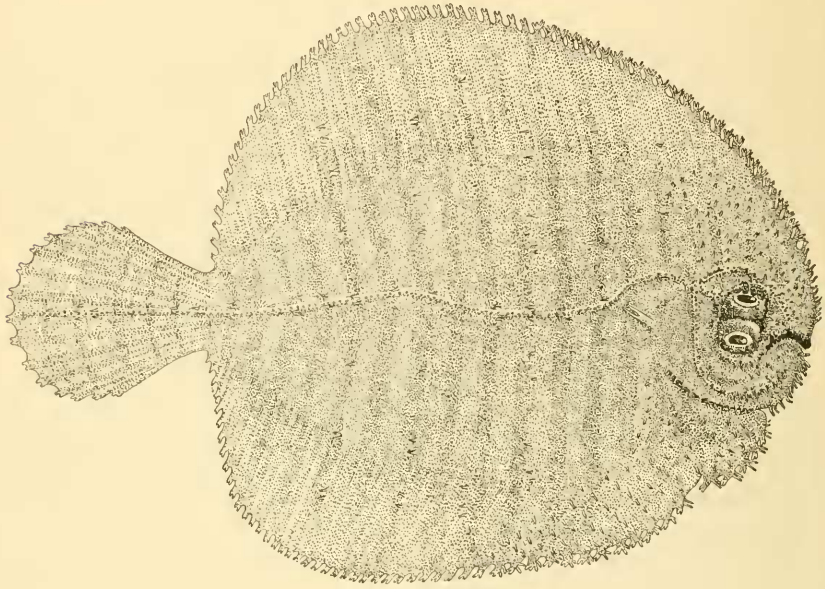


FIG. 1.—GYMNACHIRUS FASCIATUS.

*nudus*, described a scaleless sole from Bahia, Brazil, making it the type of a new genus.

The Tisbury Great Pond specimen of *G. nudus* is somewhat larger and more circular in outline than the Florida specimen of *G. fasciatus*, darker in color, and has a straighter lateral line. It also appears to have a longer head, somewhat smaller eye, and longer snout, but otherwise, except in the absence of pectoral, agrees with it very closely as it does with the description of *G. fasciatus* of Günthér.

<sup>1</sup> Übersicht der Soleinæ der vierten subfamilie der Pleuronectidæ, Weigenmann Archiv für Naturgeschichte, vol. 1, 1858, p. 101.

Abridged translation of description:

"Without vestige of scales on body and fins. Anterior nostril in lip, next corner of mouth; second above this, midway between the eyes. Five rays in right ventral fin; no left ventral. \* \* \*

"Somewhat longer than deep, profile and chin with cilia. Lateral line above middle of opercle, high, curved, and reaching tip of snout. The slimy brown body with 14 black crossbars, which extend upon the fins. Irregular concentric rings about the eyes. Caudal fin edged with white, with two black bands at beginning.

"D. 51; A. 42; V. 0-5; C. 17.

"Bahia; presented to the Paris collection by the Geneva Museum."

Total length about  $2\frac{3}{4}$  inches; head 3.82; depth 1.85; lower eye 4.75; distance from lower eye to tip of upper jaw 2.77; depth of caudal peduncle 1.70 in head. D. 64; A. 50; V. 5; C. 16.

Strongly fringed about the head, in front of dorsal and ventral, and crossrows of cilia on body; tips of rays of vertical fins and caudal bifid.

Color in formalin very dark brown with slight traces of fourteen or more darker crossbars on body, which have disappeared after a long

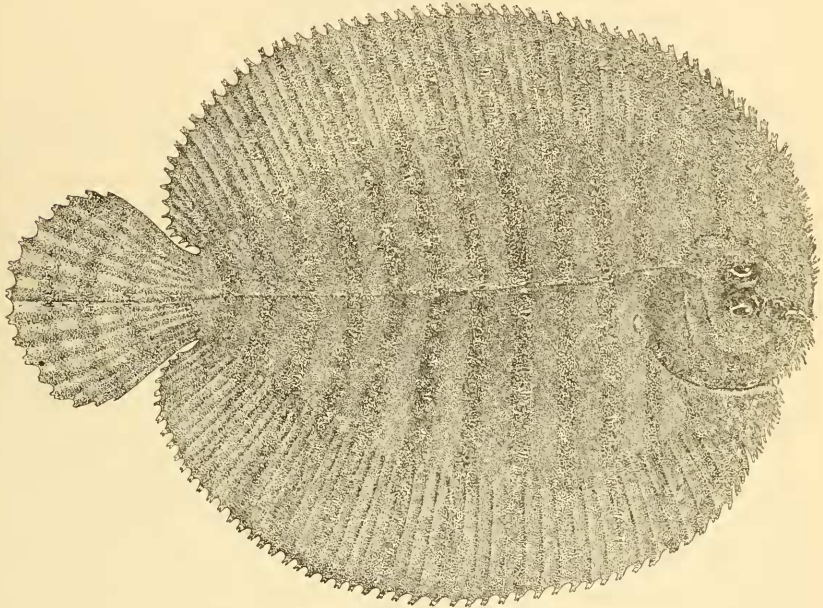


FIG. 2.—GYMNACHIRUS NUDUS.

time in alcohol, the body becoming almost black; left side very dusky but not so black; tips of vertical fin rays white. (Cat. No. 67356, U.S.N.M.)

More remarkable than the presence of this bottom fish in southern Massachusetts waters is the fact that it was taken in a so-called pond or estuary usually inclosed from the sea several months of the year. Of course, in the pond it is a chance occurrence, probably being one of the numerous stray species from southern waters brought north by the Gulf Stream as a surface-swimming young.